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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,577	09/27/2001	Ryoichiro Uehara	05711.0122	9686
22852	7590	06/15/2005		
			EXAMINER	
			BRITTAINE, JAMES R	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/963,577	UEHARA ET AL.
	Examiner	Art Unit
	James R. Brittain	3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 March 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3,4,7,8,10 and 11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,3,4,7 and 8 is/are rejected.
 7) Claim(s) 10 and 11 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

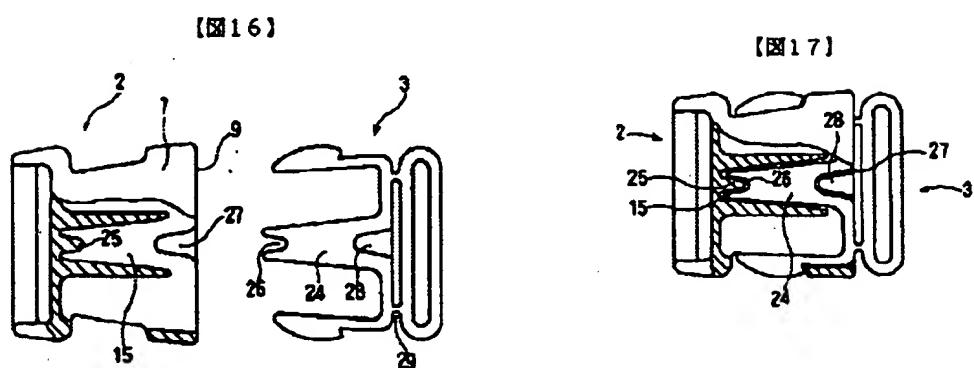
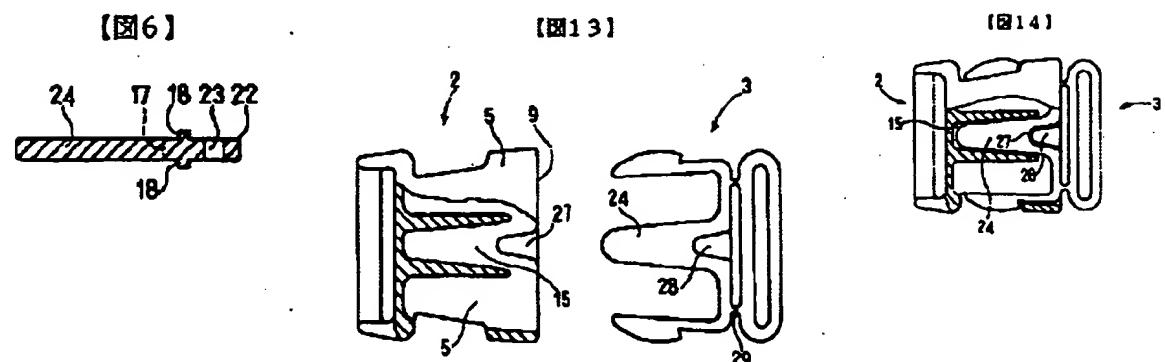
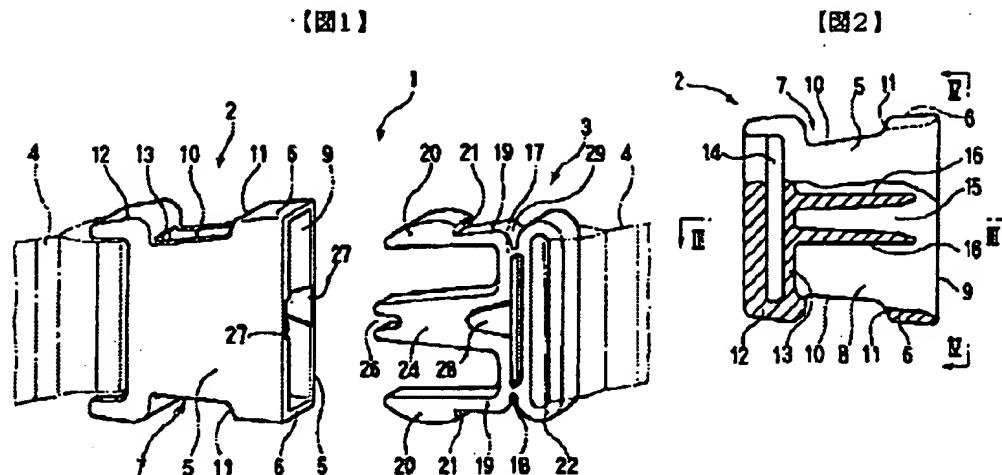
DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4 and 7, so far as definite, are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 8-131215 in view of Della Valle (US D468233) and Krauss (US 5590444).

JP 8-131215 (figures 1, 2, 6, 13, 14, 16, 17) teaches a buckle comprising a female body 2 formed with a flat housing and a male body 3 having flexible insertion legs 20 which are engaged with each other by insertion, each of the female body and the male body having a front surface, a rear surface, and right and left side faces, and having butting portion including straight portions 18 and a convex portion 28 formed on the front surface of the male body and a concave portion 27 with straight portions defined by the edge of the mouth of the female body on the inside surface of the front face of the female body 2, wherein the concave 27 and convex 28 portions are formed at a center of the butting portion sandwiched by the straight portions 18 on the male body and the corresponding straight portions of the female body, the convex portion 28 in the butting portions protrudes in a wedge-shaped form with a rounded narrowed leading edge while the concave portion 27 is dented with the inlet expanded, the female and male bodies are thereby formed closely in contact at the butting portions, a guide 24 is protruded linearly from a center of a front end of the convex portion 28 of the male body, and partition pieces 16, 25 for guiding the guide member on a same line as an axis line of the guide member are provided on an inner surface of the housing of the female body.

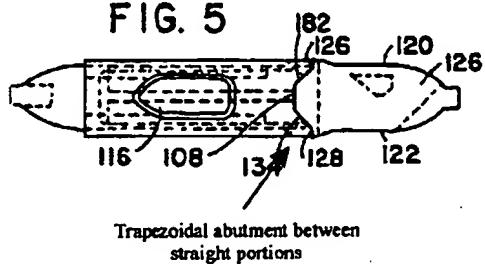


The side view shown in figure 1 shows the convex portion and straight portions being notched to a one level lower stepped portion which fits into the female body so as to be overlapped thereby.

The difference is that the convex portion is not trapezoidal and the concave portion does not extend through the thickness of the front face of the female body so as to exist on the front surface and it lacks the

stepped surfaces on all sides. However, Della Valle (figures 1-3) suggests utilizing a trapezoidal shape on the major surface of the male body and a congruent trapezoidal cut-out for its reception and Krauss (figures 5-9) teaches a buckle similar to JP 8-131215 and further suggests the use of a trapezoidal butting guide 132, 134, 108 positioned on opposite side faces of the male body fitting into a cooperating recesses 142, 144, 146 on side faces of the opening of the female body that extend completely through the side faces so as to provide a geometry well known in buckles to provide stable interengagement between the male and female bodies and having stepped surfaces between straight portions.

FIG. 5



Trapezoidal abutment between straight portions

FIG. 6

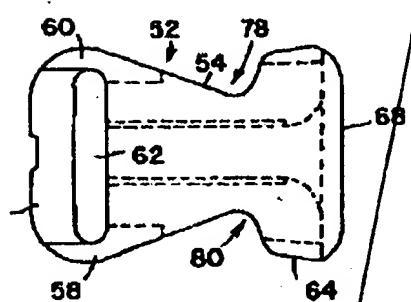


FIG. 7

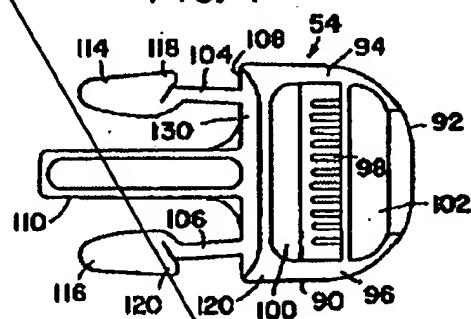


FIG. 8

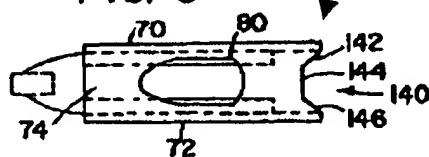
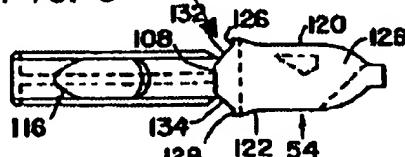


FIG. 9



The creation of interlocking structure with straight sides provides advantages in the buckle art

described by Krauss (col. 4, line 66 through col. 5, line 14):

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65 removed from channel 66.

Importantly, when buckle 50 is in a locked state, the interlocking keys of male member 54 and the interlocking

key receptacles of female member 52 together form a system that applies or distributes the torsional loads across top and bottom walls 70, 72 of female member 52. That is, the interlocking key system has thus transferred the torsional loads from resilient arms 104, 106 to the top and bottom 5 walls of female member 52. In addition, the interlocking system helps guide arm 110 and resilient arms 104, 106 of male member 54 to guide squarely in line with the load. Also, if the webbing should become kinked to one side under load, the interlocking key system prevents the male or female member 54, 52 from being pulled side to side. That is, the interlocking system helps maintain a straight line pull 10 on buckle 50. This enables resilient arms 104, 106 to perform their locking function. Male member 54 will therefore remain completely engaged.

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As the JP 8-131215 buckle is designed to have butting convex and concave surfaces on the male and female bodies, respectively, so as to inherently interlock the male and female bodies together at the mouth of the female body against relative lateral movement and it would be advantageous to have the lateral torsional loads well distributed across the front faces of the male and female bodies to the side faces while maintaining square alignment during insertion and preventing lateral movement, it would have been obvious to modify the buckle of JP 8131215 so that the butting portions are trapezoidal in view of Della Valle teaching that it is desirable to utilize a trapezoidal cut-out on the major face of the female body to receive the trapezoidal portion on the male body and Krauss (figures 5-9) similarly teaching the use of a trapezoidal butting guide 132, 134, 108 on the male body fitting into a cooperating recess 142, 144, 146 extending completely through a minor face of the opening of the female body so as to provide a geometry well known in buckles to provide stable interengagement between the male and female bodies and to have continuous stepped portions so that torsional forces can be well distributed while providing sure guidance and preventing side to side movement.

So far as understood, the combination of references provides the continuous relationship that applicant claims.

As to claim 3, JP 8-131215 shows in figure 1 the concave and convex butting surfaces formed on both front and rear surfaces of the male and female bodies.

In regard to claim 4, JP 8-131215 shows in figure 1 the concave and convex butting surfaces sandwiched between straight butting portions formed on both front and rear surfaces of the male and female bodies. Claim 4 requires butting straight or linear-form butting portions on two opposite sides and the convex and concave portions on one side. JP 8-131215 shows this. Claim 4 is silent on prohibiting other butting configurations such as convex and concave on the opposite surface. There are no limitations in claim 4 to prohibit convex and concave portions on both sides and even so Della Valle shows such structure.

As to claim 7, JP 8-131215 shows the concave portion of the female body and the convex portion on the male body in figures 1, 13, 14, 16, and 17 as does Della Valle.

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over JP 8-131215 in view of Della Valle (US D468233) and Krauss (US 5590444) as applied to claim 1 above, and further in view of Isenmann (US 3979934).

JP 8-131215 places the concave butting portion on the female body and the convex butting portion on the male body. JP 8-131215 fails to reverse the locations so that the so that the concave section is upon the male body and the convex section is upon the female body. However, Isenmann (figures 1-7) teaches similar buckle structure acting as a key holder and further suggests including a female body 10 with a flat housing and a convex portion with flanking straight portions that act as butting portions. These butting portions mate with the complementary concave portion with flanking straight portions on the male body 12 that has flexible legs 36 for insertion and engagement with the female body 10. Applicant is reminded that "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also

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the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). The Isenmann reference suggests to one of ordinary skill in the art that to provide an interlocking connection at the mouth of the female body with the convex butting portion on the female body and the concave butting portion on the male body provides a reversal of the concave and convex butting portions shown by JP 8-131215. Applicant is reminded that the reversal of parts has been held to be an obvious expedient. *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955). This teaching of Isenmann shows that it would have been obvious to reverse the keyed portions between the male and female parts of the buckle of JP 8-131215.

Allowable Subject Matter

Claims 10 and 11 are objected to as depending from a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments have been fully considered but they are moot in view of the new grounds of rejection.

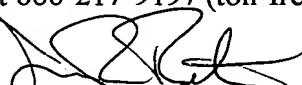
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is (571) 272-7065. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James R. Brittain
Primary Examiner
Art Unit 3677

JRB